

Remarks

1. Summary of the Office Action

In the final office, the Examiner maintained rejections of claims 1, 3, 4, 7-10, 13-15, 19, 25, and 26 under 35 U.S.C. § 102(b) as being allegedly anticipated by U.S. Patent No. 6,078,957 (Adelman). Further, the Examiner maintained rejections of (i) claims 2, 6, 12, 17, 20, 22, and 24 under 35 U.S.C. § 103 as being allegedly obvious over Adelman in view of U.S. Patent No. 6,212,175 (Harsch), (ii) claims 5 and 11 under 35 U.S.C. § 103 as being allegedly obvious over Adelman in view of U.S. Patent Application Pub. No. 2004/0230661 (Rashid), (iii) claim 16 under 35 U.S.C. § 103 as being allegedly obvious over Adelman in view of RFC 2543, (iv) claim 18 under 35 U.S.C. § 103 as being allegedly obvious over Adelman in view of U.S. Patent No. 6,014,694 (Aharoni), (v) claim 21 under 35 U.S.C. § 103 as being allegedly obvious over Adelman in view of Harsch and Rashid, and (vi) claim 23 under 35 U.S.C. § 103 as being allegedly obvious over Adelman in view of Harsch and Aharoni.

2. Status of the Claims

Still pending are claims 1-17 and 19-26, of which claims 1, 4, 9, 14, 19, 20, 25 and 26 are independent and the remainder are dependent.

3. Response to Rejections of Claims 1-17, 19, and 21-26

Of these claims, claims 1, 4, 9, 14, 19, 25, and 26 are independent and stand rejected as being allegedly anticipated by Adelman.

In Applicant's last response, Applicant explained why Adelman does not anticipate these claims. The crux of Applicant's argument was, and remains, that Adelman fails to teach sending *a response to a keepalive message where the response to the keepalive message includes an indication of a load-based keepalive period.*

As Applicant explained, Adelman teaches that master and client devices are each arranged to periodically send keepalive messages to each other. When a client sends a keepalive message to the master, the master uses a packet-sequence number of the keepalive message as a basis to determine packet loss in the network and, based on that determined packet loss, to establish a new keepalive interval. However, the master does not send the new keepalive interval in a response to the keepalive message received from the client. Rather, the master merely includes the keepalive interval in the *next periodic keepalive message* that the master itself sends to the client. Adelman does not disclose anything about that next periodic keepalive sent by the master being a response to the client's keepalive message; rather, Adelman clearly teaches that the keepalive messages sent by the master are themselves sent periodically (*see, e.g.*, column 8, lines 31-36), which is *inconsistent* with the idea of sending them in response to keepalive messages received from clients.

Thus, even if we assume for sake of argument that Adelman's determination of "packet loss" is a determination of network load as in Applicant's claims (which Applicant neither addresses nor concedes), Adelman fails to anticipate claims 1, 4, 9, 14, 19, 25, and 26 at a minimum because **Adelman fails to teach sending a response to a keepalive message where the response includes an indication of a load-based keepalive period, for use by the recipient client to determine when to send a next keepalive message.**

Consequently, Applicant submits that claims 1, 4, 9, 14, 19, 25, and 26 are allowable. Furthermore, without conceding the Examiner's other assertions, Applicant submits that dependent claims 2-3, 5-8, 10-13, 15-17, and 21-24 are allowable as well for at least the reason that they each depend from an allowable independent claim.

In the final office action, the Examiner included a "Response to Arguments" section in which the Examiner commented on Applicant's arguments. However, in doing so, the Examiner did not substantively rebut the patentable distinction noted by Applicant. In particular, in the "Response to Arguments" section, the Examiner did not establish or even allege that Adelman teaches the claim function of **sending a response to a keepalive message where the response to the keepalive message includes an indication of a load-based keepalive period**. Rather, at best, the Examiner reiterated that Adelman teaches calculating an adaptive keepalive period based on packet loss determined from sequence number information in a keepalive message received from a client, and that Adelman teaches the server sending that keepalive period to cluster members for their use in determining how often they are to send client keepalive messages.

This teaching of Adelman, however, does not amount to Applicant's claim function of **sending a response to a keepalive message where the response to the keepalive message includes an indication of a load-based keepalive period**. The teaching does not involve (either inherently or expressly) sending the calculated keepalive period **in a response to a keepalive message**. Rather, as discussed above, Adelman teaches that the server periodically sends keepalive messages to the clients and that the clients periodically send keepalive messages to the server, and that the server includes the calculated keepalive period within its periodic keepalive message to the clients. The periodic keepalive message from the server, however, is not a response to a keepalive message from a client. Thus, the server's inclusion of the calculated keepalive period in its periodic keepalive message to clients does not amount to sending a response to a keepalive message where the response includes an indication of a load-based keepalive period.

a. Claims 1-3, 9-13, 19, 25, and 26

In rejecting independent claims 1, 9, 25, and 26, the Examiner alleged that Adelman teaches the missing feature noted above, at column 9, lines 13-16, and column 13, line 42 – column 14, line 13. However, a review of those portions of Adelman, like the remainder of Adelman, reveals that Adelman does not disclose this claim feature.

Column 9, lines 13-16, of Adelman at best teaches that each client has a periodic timer that is adaptive to a network packet loss value sent by the master which requires the client to send a client keepalive message to the master periodically. And column 13, line 42 – column 14, line 13, of Adelman at best teaches that, after computing a keepalive interval based on packet loss discerned from client keepalive packets, the master sends the computed keepalive interval to all cluster members. However, it is clear from column 13, lines 4-26, of Adelman that the master includes the computed keepalive interval in its periodic keepalive message to the clients. Therefore, it is reasonable to conclude that once Adelman's master computes a new keepalive interval, the master would include the computed keepalive interval in the next periodic keepalive message that the master sends to the clients. There is no teaching in Adelman that the master would send the computed keepalive interval in a response to a client keepalive message.

Because the Examiner has not pointed to any actual disclosure of this claim element in Adelman, the Examiner has not established anticipation of claims 1, 9, 25, and 26. Therefore, Applicant submits that claims 1, 9, 25, and 26 are allowable. Furthermore, without conceding the Examiner's other assertions, Applicant submits that dependent claims 2-3 and 10-13 are allowable as well for at least the reason that they depend from allowable claims 1 and 9.

b. Claims 4-8 and 14-17

In rejecting independent claims 4 and 14 (which Applicant amended in the last response to include the limitation of reporting the selected load-based keepalive period in a response to a keepalive message), the Examiner did not even address the added claim element regarding reporting the selected load-based keepalive period in a response to a keepalive message and thus did not allege that Adelman teaches that element.

As the Examiner did not allege that Adelman teaches all of the elements of claim 4 or all of the elements of claim 14, the Examiner clearly did not establish anticipation of claims 4 and 14. Therefore, Applicant submits that claims 4 and 14 are allowable. Furthermore, without conceding the Examiner's other assertions, Applicant submits that dependent claims 5-8 and 15-17 are allowable as well for at least the reason that they depend from allowable claims 4 and 14.

4. Response to Rejections of Claims 20-24

Of these claims, claim 20 is independent and stands rejected as being allegedly obvious over Adelman in view of Harsch.

In rejecting claim 20, the Examiner maintained relied on Adelman for largely the same reasons that the Examiner relied on Adelman with respect to the other independent claims. As discussed above, however, Adelman fails to teach sending a *response to a keepalive message* where the response includes an indication of a load-based keepalive period, for use by the recipient client to determine when to send a next keepalive message, as more particularly recited in claim 20. Furthermore, the Examiner has not asserted that Harsch makes up for this particular deficiency of Adelman. Consequently, *prima facie* obviousness of claim 20 over Adelman in view of Harsch does not exist.

Furthermore, in rejecting claim 20, the Examiner did not even allege that the combination of Adelman and Harsch discloses or suggests the claim feature of the server reporting the selected keepalive period to the at least one mobile subscriber in a response to the received keepalive message (as amended in the last response). Therefore, the Examiner has clearly not made out a *prima facie* case of obviousness, and thus Applicant submits that claim 20 is allowable.

Still further, without conceding the Examiner's other assertions, Applicant submits that dependent claims 21-24 are allowable as well for at least the reason that they depend from allowable claim 20.

5. Conclusion

For the foregoing reasons, Applicant submits that all of the pending claims are in condition for allowance, and Applicant thus respectfully requests favorable reconsideration and allowance of the claims.

Should the Examiner wish to discuss this case with the undersigned, the Examiner is welcome to call the undersigned at (312) 913-2141.

Respectfully submitted,

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